Corps of Engineers reviewing impacts, damages from spring run-off event in Idaho, Montana

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SEATTLE -- Officials from the U.S. Army Corps of Engineers (Corps) are moving out in many fronts to assess the impacts from the recent flood event. Seattle District staff are reviewing impacts to the local levees in the Bonners Ferry, Idaho, and assessing flood damages in the Troy and Libby, Montana area.

In addition, the Corps has initiated an overall review called an After Action Report (AAR). The AAR will review this year's operations and implementation decisions for the 2006 Spring Runoff event. According to Doug Weber, natural disaster manager for the Corps' Seattle District, AARs are prepared for significant flood events, in accordance with Corps regulations.

"The report will include a discussion of the emergency response; the types of emergency assistance provided; coordination with other federal, state, and local agencies; analysis of the effectiveness of the emergency response; and a description of the water management operation of Libby Dam in 2006. We anticipate this report will be completed early fall 2006," said Weber. Copies of the report will be available to the public.

Record temperatures, rapid snow melt and significant rain storms contributed to flooding in Kootenai Valley in June. During the high flows from Libby Dam, the Corps worked with local officials, citizens, radio stations and other media to inform the public of any changes of the outflow from the dam and changes in the river downstream. The spring flood event saw the Kootenai River reach 1766.56 feet above mean sea level, more than 2.5 feet over floodstage at Bonners Ferry. The Corps assisted local governments with flood response and expended over \$1.4 million during this event. This included assisting with emergency levee repairs in Bonners Ferry, Idaho, and providing 80,000 sandbags to both Lincoln County in Montana and Boundary County in Idaho. The Corps also provided assistance to landowners who were flood proofing their homes during the event.

The Corps operates Libby Dam for flood damage reduction in addition to other multiple purposes in the Columbia Basin and the Kootenai Valley, including hydropower generation, recreation, and fish and wildlife. Libby Dam provides flow augmentation for white sturgeon in addition to summer bull trout minimum flows and salmon flow augmentation. Variable discharge flood control (VARQ) was developed to improve the multipurpose operation of Libby Dam while maintaining the level of local and mainstem flood protection in the Columbia River. Under VARQ flood control, a storage reservoir is lowered less in winter during years with a low or medium runoff forecast. VARQ has been used at Libby Dam since the winter of 2003.

In developing water management strategies to provide for the varying uses of Libby Dam, the Corps works with the National Weather Service Northwest River Forecast Center (NWRFC) and the Natural Resources Conservation Service (NRCS) to develop water supply forecasts for the Columbia Basin and streamflow forecasts for the Columbia Basin.

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Starting in January of each year, forecasts are developed each month based on the current snowpack supplied by the NRCS and British Columbia Hydro and Power Authority (BC Hydro) and expected precipitation spanning over several months, which is supplied by the NWRFC and BC Hydro. The Corps makes operational decisions for Libby Dam using this information.

Operational decisions at Libby Dam take into consideration system and local flood control needs, conservation needs of species listed under the Endangered Species Act, as well as other project purposes such as hydropower generation, fish and wildlife and recreation. These operational decisions are coordinated with the National Marine Fisheries Service, U.S. Fish and Wildlife Service and other federal and state agencies, as well as BC Hydro under the Columbia River Treaty with Canada..

According to Jim Barton, chief of Water Management Division, the May 2006 forecasts for Libby Dam predicted an average water supply and the Corps planned operations based on these forecasts.

"However, the actual inflows into the reservoir in May were 142 percent of average, in large part, because of unusually warm temperatures melting a significant amount of the snowpack," said Barton.

Barton said the May inflow to Libby Dam was concentrated into the last half of May when the inflows were 165 percent of normal. June inflow was concentrated into the first part of the month, concurrent with heavy rain and thunderstorm events in the area. Significant above average precipitation in June contributed to the flood flow in the basin.

The high inflows in May and June filled the reservoir very quickly and ultimately required high outflows to manage the reservoir elevation. Since powerhouse capacity is approximately 25,000 cubic feet per second, use of the spillway proved necessary. Outflow from Libby Dam ultimately reached as high as 55,000 cfs on June 17.

More information is available on the Corps' Web site at www.nws.usace.army.mil/.